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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/688,020

10/17/2003

Keith W. Caruso

BRI/016

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04/03/2006

Thomas J. Brindisi, Esq.
Suite B
20 28th Place
Venice, CA 90291

EXAMINER

VORTMAN, ANATOLY

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/688,020 | Applicant(s) CARUSO ET AL. | |
| | Examiner Anatoly Vortman | Art Unit 2835 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006 (RCE and amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6 and 15-32 is/are pending in the application.
- 4a) Of the above claim(s) 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,15-26 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/28/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application on February 8, 2006, after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's concurrently filed submission has been entered.

Election/Restrictions

2. Newly submitted claims 27, 28, and 29, are directed to an invention that is independent or distinct from the invention originally claimed, because they are drawn to specie, which “does not include a projectile”. Since applicant has received an action on the merits for the originally presented specie, which includes “a projectile”, this invention has been constructively elected by original presentation for prosecution on the merits. See 37 CFR 1.142(b) and MPEP § 821.03. The general policy of the Office is not to permit the applicant to shift to claiming another invention after an election is once made and action given on the elected subject matter. Applicant cannot, as a matter of right, file a request for continued examination (RCE) to obtain continued examination on the basis of claims that are independent and distinct from the claims previously

claimed and examined (i.e., **applicant cannot switch inventions by way of an RCE**). See MPEP § 819. Accordingly, claims 27, 28, and 29 are withdrawn from consideration as being directed to a non-elected invention. Claim 21, which includes limitation “means for breaking” will be construed under 35 USC 112, paragraph six, as reading only on specie comprising “projectile”.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 20, 25, and 26, are rejected under 35 U.S.C. 102(b) as being anticipated by US/4,224,487 to Simonsen (of record).

Regarding claims 20, 25, and 26, Simonsen disclosed (Fig. 1 and 2) a pyrotechnic circuit breaker for use in an electrical circuit comprising: an electrically conductive bolt-on fuse strip portion (15) including means (11) for secure incorporation into the electrical circuit, said electrically conductive portion (15) having the first and second ends (inherently), said means for secure incorporation (11) including a first portion at said first end and a second portion at said second end (means for secure incorporation (11) inherently include ends of the conductive portion (15), since said ends are integrally

formed with, and connected to said means for secure incorporation (11)), said electrically conductive portion (15) being an integral single piece that has a uniform thickness throughout the distance between said first and second portions of said means for secure incorporation (11), a pyrotechnic igniter (3) including electrical leads (1) and an output end, said igniter (3) secured so that said output end is oriented toward said electrically conductive portion (15); a passage (19) between said igniter (3) and said electrically conductive portion (15); and a rupture area (17) adjacent said electrically conductive portion (15) and on the opposite side of said electrically conductive portion (15) from said pyrotechnic igniter (3) output end, wherein said electrically conductive portion (15) has a narrowed region between said passage (19) and said rupture area (17) (Fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 6, 15-19, 21-24, and 30-32, are rejected under 35 U.S.C. 103(a) as being unpatentable over Simonsen taken alone.

Regarding claims 1, 2, 4, 6, and 15-19, Simonsen disclosed (Fig. 1 and 2) a pyrotechnical circuit breaker as claimed including: an electrically conductive portion (bolt-on current load-based fuse) (15) having a flattened portion (15) and further including means (members (11)

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having bolt holes) for secure incorporation of the portion (15) into the electrical circuit; a pyrotechnic igniter (3) including electrical leads (1) and an output end, said igniter (3) secured so that said output end is oriented toward said electrically conductive portion (15); a passage (19) between said output end of said pyrotechnic igniter (3) and said electrically conductive portion (11, 15); a rupture area (17) adjacent said electrically conductive portion (11, 15) and on the opposite side of said electrically conductive portion (11, 15) from said pyrotechnic igniter output end, said rupture area (17) is defined in a polymeric (column 3, lines 35-40) housing (2) of the circuit breaker, and a projectile (4, 5) between said pyrotechnic igniter (3) and said electrically conductive portion (15), a housing (2) formed of polymer (column 3, lines 35-40), the projectile (4, 5) is mounted into said housing (2), between said pyrotechnic igniter (3) and said electrically conductive portion (15); wherein said electrically conductive portion (15) is formed to be readily cut by said projectile (4, 5), but did not disclose that said projectile is formed of polymer and as an integral part of the housing.

It would have been obvious for a person of ordinary skill in the fuse art at the time the invention was made to make said projectile of Simonsen of polymer and as an integral part of the polymeric housing of Simonsen, in order to reduce number of components and to simplify assembly of the device, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Also, and it has been held to be within the general skill of a worker in the art to select a known material (i.e. polymer) on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 21-24 and 30, Simonsen disclosed (Fig. 1 and 2) a pyrotechnic circuit breaker for use in an electrical circuit comprising: an electrically conductive bolt-on fuse strip portion (15) including means (11) for secure incorporation of the portion (15) into the electrical circuit, wherein said electrically conductive portion (15) has an impact area (inherently); a pyrotechnic igniter (3) including electrical leads (1) and output end, said igniter (3) secured so that said output end oriented toward said electrically conductive portion (15), a passage (19) between said output end of said pyrotechnic igniter (3) and said electrically conductive portion (15); and a rupture area (17) having a perimeter (inherently) adjacent said electrically conductive portion (15) and on the opposite side of said electrically conductive portion (15) from said pyrotechnic igniter output end, and projectile means (4, 5) for breaking said electrically conductive portion (15) by being propelled by the output of said pyrotechnic igniter (3), wherein said electrically conductive portion (15) has a narrowed region between said passage (19) and said rupture area (17) (Fig. 2), but did not disclose that said projectile means is formed of polymer and as an integral part of the housing (as recited in the specification of the instant application).

It would have been obvious for a person of ordinary skill in the fuse art at the time the invention was made to make said projectile of Simonsen of polymer and as an integral part of the polymeric housing of Simonsen, in order to reduce number of components and to simplify assembly of the device, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893) and it has been held to be within the general skill of a worker in the art to select a known material (i.e. polymer) on the basis of its

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suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 31 and 32, Simonsen disclosed (Fig. 1, 2) that said electrically conductive portion (15) is a fuse, said fuse (15) having the first and second ends, said means for secure incorporation (11) including a portion at said first end of said fuse (15) and a second portion at said second end of said fuse (15) (means for secure incorporation (11) inherently include ends of the fuse (15), since said ends are integrally formed with, and connected to said means for secure incorporation (11)), said fuse (15) being an integral single piece that has a uniform thickness throughout the distance between said first and second portions of said means for secure incorporation (11).

Response to Arguments

7. Applicant's arguments have been fully considered but they are not persuasive. Applicant contends that claims, as amended, are distinguished from Simonsen structure, since now “the entire portion between the securing means has a uniform thickness”. In response, the examiner would like to direct the applicant’s attention to the fact that Simonsen also teaches that entire portion (15) between securing means (11) has a uniform thickness (also, see rejection above). Further, regarding claim 21, the arguments are moot in view of the new grounds of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AV

A handwritten signature in dark ink, appearing to read 'A. Vortman', followed by a horizontal line.

Anatoly Vortman
Primary Examiner
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